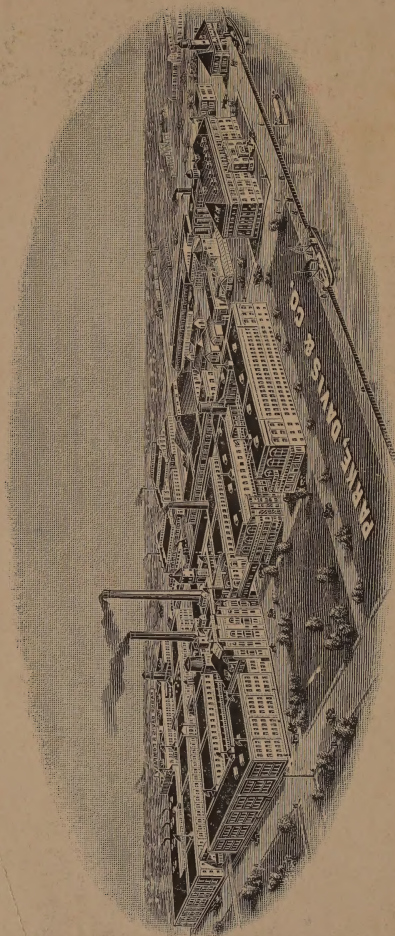




KRESOL DIP No. 1
FOR ALL LIVE STOCK
PARKE, DAVIS & CO.
CHEMISTS



HOME OFFICE AND LABORATORIES, PARKE, DAVIS & CO., DETROIT, MICH.

Our laboratories cover an area of fifteen and one-half acres of ground and employ about two thousand persons. We have branch laboratories at Walkerville, Ont., Canada, and Hounslow, England ; branch offices in principal cities of the United States, and fifty-four foreign agencies.

Kreso Dip No. 1

(STANDARDIZED)

(COMBINATION OF COAL TAR DERIVATIVES WITH SULPHUR)

NON-CAUSTIC

FOR HORSES, CATTLE, SHEEP, SWINE AND ALL
LIVE STOCK

NON-IRRITATING, EFFECTIVE, INEXPENSIVE

A most Efficient Insecticide, Disinfectant, Deodorizer,
Germicide and Cleanser. Kills Lice, Mites, and
Fleas. Cures Scab, Mange, Wounds,
Bruises, Etc. Destroys the Germs
of Disease, Purifies the Air.

Protects from Contagion and Infection, Drives flies away
from animals and Stables where it is used.



DEPARTMENT OF ANIMAL INDUSTRY

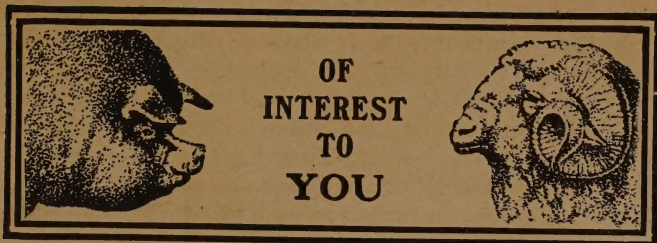
HOME OFFICE AND LABORATORIES

Detroit, Mich., U. S. A.

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Kreso Dip No. 1 is manufactured by Parke, Davis & Co., the largest and most widely known pharmaceutical house in the world. Ask any physician, veterinarian or druggist in the civilized world and they will tell you that the initials P. D. & Co. represent the highest standard of medicinal products. By using these products you are using those that have a reputation behind them, products standardized, and therefore uniform and made under the supervision of skilled chemists, pharmacists and biologists.

Page 5 shows the Biological Building, in which over thirty scientists give their whole time to research work and perfecting our products. The manufacture of Kreso Dip No. 1 is carried on with as much care and precision as the manufacture of the most delicate antitoxins.

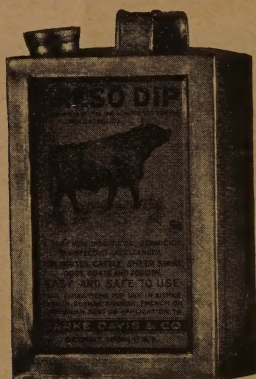
KRESO DIP NO. 1 IS STANDARDIZED.

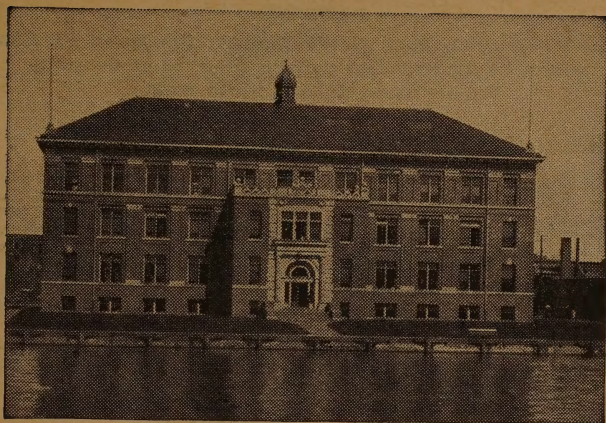
This means that every lot of Kreso Dip No. 1 is subjected to the same rigid tests, and must come up to a set standard. It is tested for both strength and efficiency, and is therefore always uniform and dependable.

To illustrate, Kreso Dip No. 1, described in this booklet, is made from coal-tar oil, a by-product in the manufacture of coke and gas. You know how coal itself will vary. One lot will burn with a bright, clean fire, leaving no clinkers and but little ash, while another lot will give a slow, smoky fire, many clinkers and much ash. In the same way different lots of coal-tar oil may vary, due to different kinds of coal or different processes of manufacture of coke or

gas. One lot may be exactly right for the manufacture of a Dip and disinfectant; another may be practically worthless. The only way to determine which is good and which is bad is by chemical analysis. Guesswork will not do. It makes the user suffer. We have competent chemists and every facility for making the necessary tests that most handlers of dips and disinfectants do not have. Before acceptance, a sample of each lot of oil is subjected to a rigid chemical test by competent chemists in our laboratories. If the test shows that it contains the essential materials the lot is accepted. Any that does not come up to standard is promptly rejected. Then after the dip is made up it is again tested by a bacteriologist to prove its efficiency in killing insects and disease germs. By this method we protect the user against endless trouble and annoyance, which an uncertain and variable dip is certain to cause. Unless these precautions are taken you can never be sure of what you are using and you may do more harm than good.

Think of these facts when you are buying dip or disinfectant.





LABORATORY OF MEDICAL RESEARCH, PARKE, DAVIS & CO.

This building contains the Analytical Laboratories, the Department of Experimental Pharmacy, the Department of Experimental Medicine, and the Biological Departments, where every lot of Kreso Dip No. 1 is tested both analytically and biologically.

IMPORTANT FACTS.

Kreso Dip No. 1 is a coal-tar product combined with soluble sulphur.

Kreso Dip No. 1 is for use upon Horses, Cattle, Sheep, Goats, Hogs, Dogs, Poultry and Pet Stock.

Kreso Dip No. 1 kills lice, sheep ticks, mites, fleas, drives away flies and mosquitoes, cures mange, scab, ringworm and other skin diseases, disinfects, cleanses and deodorizes.

Kreso Dip No. 1 is necessary to keep stock in a healthy and thrifty condition, free from parasites and skin diseases. Give Kreso Dip No. 1 a trial and you will regard it as a necessity thereafter.

**MICHIGAN HOUSE OF REPRESENTATIVES,
LANSING.**

Wm. H. Schantz, Rep. Barry County, Chairman of Committee on Agricultural College, Member of Committee on State Affairs, State Prison.

HASTINGS, MICH.

**PARKE, DAVIS & Co.,
Detroit, Mich.**

Gentlemen: Until about one year ago I had been using various sheep dips, but at the International Live Stock Show of 1905, in conversation with one of your men in charge of your exhibit there I learned among other things that your Kreso Dip was all standardized, that is, as I understood it, all of equal strength. I had noticed before that in the use of one kind of dip I thought I obtained different results, some satisfactory, others not so. I then determined to try Kreso and find that results have always been satisfactory.

Yours truly,

(Signed) **W. H. SCHANTZ.**

McALLASTER DAIRY RANCH.

WINONA, KAN.

**MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.**

Gentlemen: This is to certify that the stock dip "Kreso" manufactured by you has been thoroughly tested on our ranch. Several individuals in our herd that were very badly infected with mange are now to all appearances completely cured. No shrinkage in milk flow followed the use of this dip on the cows composing our milk herd, and no irritating effects were noticeable on any class of stock.

We cheerfully recommend Kreso to any one looking for a thoroughly reliable dip.

Very respectfully,

(Signed) **STECK & SHULL.**

BELVIDERE, KAN.

**PARKE, DAVIS & Co.,
Kansas City, Mo.**

Gentlemen: This is to certify that during the last six weeks I have put the Kreso Dip prepared by you to the most severe tests. I have cured the worst case of mange I ever knew to affect cattle. One case in particular, on which the different veterinary preparations had been used for 18 months without benefit, has been completely cured by several washings with Kreso Dip, and all other animals affected, many of them very seriously, have been cured by two dippings. I do not hesitate to state that from what experience I have had the Kreso Dip is far superior to any preparation I have ever used. I have recommended it to several of my friends, and am perfectly willing to have you refer any one to me, should you so desire, as to its merits, which I think should be thoroughly understood by every cattleman for his own benefit.

Very truly yours,

(Signed) **F. ROCKEFELLER.**

KRESO DIP NO. 1 IS THE BEST FOR ALL LIVE STOCK AND POULTRY.

Because it is non-caustic. When used as directed, it is not poisonous, caustic, injurious or irritating, either to the animal or its hide.

Because it does not dry up the natural oils and secretions of the skin and thus retard the growth of the wool or hair or injure them in any way.

It makes the coat glossy and clean, the skin soft and pliable, cures abrasions, eruptions, cuts, etc., stimulates the growth of the fleece or of hair, promotes the healing of cuts and wounds and adds to the general appearance of the stock.

Because it does not retard the growth of the animal or set it back in condition.

It can be used immediately after castrating, dehorning, or shearing, and will be found to possess remarkable healing properties in the case of all cut, torn or injured parts.

Because it is standardized by chemical and biological tests, making it always the same—dependable (see page 3.)

Because it requires no boiling. Simply mix it with water and it is ready to use.

Because it disinfects at the same time that it destroys insects, a very important point in preventing the spread of hog cholera, chicken cholera, contagious abortion, and other infectious diseases.

Because it contains soluble sulphur, which has a most beneficial effect upon an animal's skin and in a measure prevents reinfection.

Because the cresols form the basis of its active qualities. Scientific authorities* recognize these materials as the best known insecticides and disinfectants, yet at the same time they are the least harmful to higher animal life.

THE MONTANA AGRICULTURAL EXPERIMENT STATION.

BOZEMAN, MONT.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: We recently had an outbreak of trouble in our cattle barn, and in the disinfection of the buildings we used your Kreso Dip with entire satisfaction. After thoroughly scrubbing out the buildings, the walls, flooring and fixtures were thoroughly sprayed with a solution of this dip and we found it to work very satisfactorily.

Very truly,
(Signed) F. B. LINFIELD, Director.

SWAN LAND AND CATTLE COMPANY.

CHUGWATER, WYO.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: We have put up a steam plant and made an emulsion of Kreso Dip. It has worked splendidly and has thoroughly cured mange and lice on cattle. We are much pleased with our experience and have dipped over 4,000 cattle and find Kreso the best and most satisfactory dip we have ever used.

We have been dipping for the prevention of mange and for the cure of lice. The cattle we have dipped have not shown 1 per cent of suffering from mange.

Yours very truly,
(Signed) ALEX BOWIE, Mgr.

SUNNYSIDE-FAIRACRES FARMS. SHORTHORN CATTLE.

Poland China and Yorkshire Swine.

PORT HURON, MICH.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: In reply to yours of the 20th inst. in regard to Kreso Dip will say that I haven't only used that article at the State Fair, but have used it at my farm for the past two years. We keep a herd of about 80 registered Shorthorns and from 100 to 150 hogs, and must say that your Kreso Dip has proved very satisfactory to me. We use it quite extensively, not only as a disinfectant, but we wash our cattle three times during the winter thoroughly with this dip. They get through the winter in good shape, coming out in the spring without any lice or skin diseases of any kind, with their coats nice and smooth.

As a member of the Business Committee of the State Fair, I noticed it particularly as a disinfectant, and was quite pleased with results. We had a very hard time at the State Fair on account of the toilets being new and not sufficient of them for the large number of people that attended, but still at the same time the Kreso Dip did its work, while of course another year this will be remedied and this part will be properly taken care of and proper rooms and facilities afforded.

Would say that we have a supply of the Kreso Dip on hand at the present time and shall keep supplied, as I deem it very essential to have a supply at all times.

Very truly yours,
(Signed) A. E. STEVENSON.

Because Kreso Dip No. 1 is easier, cheaper and safer to use than any other material. One gallon of Kreso Dip No. 1 costs you \$1.35. In 5- and 10-gallon lots it will cost you less. Every gallon of Kreso Dip is mixed with from 60 to 100 gallons of water. Thus the solution ready to use costs you from 1 to 2 cents per gallon. One trial will convince you just as it did hundreds of others. Read some of their letters printed on various pages of this booklet.

HOME-MADE DIPS.

Occasionally we find stockmen who have some favorite material, such as kerosene, lard, tobacco water, insect powder, wood ashes, etc., for killing lice. They cling to these with the mistaken idea that they are cheap. Kreso Dip No. 1 is just as superior to these as the modern harvester is ahead of the sickle.

Kerosene will blister and take the hair off unless used with great care; it is so inflammable that its use about barns is dangerous; it costs more than Kreso Dip No. 1, and besides, it is not a disinfectant—that is, it will not kill disease germs.

Tobacco water is a nasty, sickening, disagreeable material to handle, and like kerosene is not a disinfectant. It causes nausea, sets the animal back in condition, and makes the ewe forsake the lamb. It also stains the wool and causes nicotine poisoning by entering cuts or abrasions.

Lime and sulphur requires boiling, will not kill ticks, dries up natural oils and thereby retards the growth of wool, and stains it so that it commands a lower price on the market.

Most of these are more expensive than Kreso Dip No. 1—not only in first cost but also in the amount of time and labor it takes to prepare and apply them.

THE GLENFOYLE SHORTHORNS.

MARSHALL, MICH., U. S. A.

PARKE, DAVIS & Co.,
Detroit, Mich.

Dear Sirs: I have used 10 gal. of Kreso Dip and I am well pleased with it in every way. It is cheaper and better than anything of the kind I have ever used.

Yours very truly,
(Signed) A. CHRYSTAL.

FLOWERREE ROCK CREEK RANCH.

WOLF CREEK, MONT.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Dear Sirs: This is to certify that I believe the Kreso Dip the best we have ever used on cattle or hogs. I find it easy to handle, and just as cheap as other dips. After dipping 1,600 head of cattle and 75 hogs I have not seen any scab, mange or lice on the above mentioned.

After using several different kinds of dip, I do cheerfully recommend the Kreso Dip as the best. Yours truly,
(Signed) J. P. REYNOLD, Foreman.

OFFICE OF GEORGE L. EVANS.

Sheriff of Nodaway County.

MARYVILLE, MO.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: The Nodaway County Jail was in bad shape. It was simply alive with bedbugs and lice, and after trying many disinfectants I took up your Kreso Dip, which did the work in a very satisfactory manner and placed the building in a sanitary condition. I most cheerfully recommend Kreso Dip for all public and private institutions.

Yours respectfully,
(Signed) GEO. L. EVANS.

MISSOURI STATE FAIR.

SEDALIA, MISSOURI, AUG. 15-19, 1904.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

SEDALIA, MO.

Gentlemen: Your Kreso Dip was used at this, our 1904 meeting of the Missouri State Fair. The stalls and pens of the cattle, sheep and swine buildings were sprayed and disinfected with Kreso Dip. We consider Kreso Dip the most excellent spray and dip for cattle, sheep, and swine ever put on the market, and it should be used by all stock owners.

We wish you much success in the manufacture and sale of this most meritorious product.

Yours very truly,
(Signed) LEE M. GENTRY,
Supt. Sheep and Swine Building, Missouri State Fair.

DISEASES OF SHEEP.

Scab. This disease has caused more loss to sheep owners than any other. There are two kinds, known as Head Scab (*Sarcoptes scabies*) and Common Scab



SCAB MITE.
(Magnified.)



DEAD FROM SCABIES.

(*Psoroptes Communis*), but the directions given below will apply to both.

If you are raising sheep and have never had scab in your flock, count yourself very lucky and be everlastingly on the lookout for it.

If there is scab in your flock, study the directions carefully and then follow them to the letter. It may be a hard fight for a little while, but keep at it and you will win. (See letter from Mr. Bowditch, page 12) Scabby sheep never did and never will pay.

The Cause of Scab is a very small parasite (called

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

OGDEN, IA.

Gentlemen: Your Kreso Dip is very fine. I washed my colts with it and they have improved wonderfully—do not look like the same colts. I dipped my shoats with it and it was just the thing for them. They do not itch any more; they gained fine and look good. My cattle were lousy and I washed them with it. It fixed them in good shape. I think every farmer ought to have some and after they have tried it and see how good it is they will not be without it.

(Signed) H. J. LARK.

THE TRI-STATE LIVE STOCK DEALERS' ASSOCIATION.

ALLEN, MICH.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: In November, 1904, we purchased three hundred (300) lambs for feeders on the Chicago market, brought them home and put them in a barn basement, where they would be sheltered during the feeding period and not give them much chance for "running off" the flesh that they should lay on. They had been dipped under the Government regulations before leaving the yards, but a short time afterwards they had some of the worst cases of scab that I have ever seen. The barn we kept them in was absolutely free from any scab parasites, because there had never been a case of scab on the farm. The lambs were huddled in this warm basement (where the manure was 4 to 6 inches deep) although I knew that these conditions were favorable to the development and spread of the disease and they were also favorable to fattening. The result was that the whole bunch very soon became scabby. They rubbed and pulled wool until there were great bare patches on them and they were losing flesh every day, in spite of good feeding.

Taking it all around, it looked as though they were to be a losing proposition. I tried different kinds of dips, but none of them seemed to have the necessary effect upon the disease, until at the suggestion of a friend we decided to give Kreso Dip a trial. We noticed an improvement right away after the first dipping, and after the second dipping, which was about ten days later, the lambs began to pick up and do well. The wool started on the bare places and there was very little scratching and rubbing. After dipping each time we thoroughly disinfected the basement with Kreso Dip solution, using a sprayer to do the work, and in a short time we could see that we had the disease under control. The condition of the lambs improved steadily, until when it came time to market them I was able to dispose of them at a good profit, which would not have been possible had not Kreso Dip proved effective in stamping out the disease. In fact, I have never found anything that would equal it. I recommend it unhesitatingly to sheepmen, and I will say that I will be glad to give further information to anyone who cares to write to me. The Dip is nice to handle, being easily proportioned and an excellent all-around disinfectant. We keep it on hand at all times, feeding considerable of it as a medicine, especially to our hogs.

Yours very truly,

(Signed) JOHN BOWDITCH & SON.

the scab mite) that you can scarcely see without a magnifying glass.

These parasites burrow under the skin and cause an itching that almost drives the animals wild. In biting and rubbing, the skin is broken, a watery serum collects, and this dries, forming crusts, hence the name "Scab."

Symptoms of Scab are an intense itching. In the case of Head Scab this itching is on the head. Common Scab usually appears first on the shoulder, neck or side. Starting with this as a sign, the sheep gradually get worse, tearing the wool out until they are sometimes half naked and so tormented by itching that they cannot eat or rest.

Treatment. Dip the whole flock in Kreso Dip No. 1 just as soon as possible. Every day you put it off the trouble increases. Use 1 part Kreso Dip No. 1 to 72 parts water. Follow carefully directions given on page 11.

A sample of Kreso Dip No. 1 has been submitted to the Department of Agriculture for examination. We guarantee the contents of each package to be of the same composition as the sample submitted to the department, and that when diluted according to the directions printed thereon for the treatment of sheep scab it will give a dipping fluid of the composition required of a coal-tar creosote dip by the regulations of the Secretary of Agriculture governing sheep scab.

Every Kreso Dip container has directions for use of contents. ALWAYS refer to and FOLLOW same.

If it is too cold for dipping, hand-dress according to instructions on page 53.

Repeat the treatment in 8 days after the first.

Kreso Dip No. 1 does not harm the fleece as lime and sulphur does, neither does it stain and sicken as is the case with tobacco.

FARMERSBURG, IA.

PARKE, DAVIS & Co.,
Chicago, Ill.

Gentlemen: I have given Kreso a good trial, but not in as many ways as I should like yet. Used to disinfect for horse distemper. Only the first horse had it. For scurf on Chester-White pigs two applications cured it. For lice on chickens, pigs and calves, it took but two washings to clean them out. It is a sure remedy for worms in pigs. A mare that always rubbed the mane off stopped it after one washing with Kreso. In these cases a 1 per cent to 1½ per cent was used.

Yours truly,

(Signed)

FRANK J. CORLETT.

BILLINGS, MONT.

PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Replying to your recent favor, asking me as to the effect of Kreso Dip on the wool, would say that I discovered scab on my sheep in February last, but owing to some delays which were entirely unavoidable we did not get to dip them until about April 25th or 26th. Notwithstanding they were due to lamb about this time, I determined to dip them at least once before lambing in order, if possible, to save my wool clip, as well as my lambs, and decided to use Kreso Dip, as I had understood it was both beneficial to the wool and comparatively harmless to the animal itself, as well as a sure cure for scab.

As we had anticipated, the ewes began lambing before the first dipping was completed. In this connection, permit me to say that I was very much impressed upon noticing that some of these lambs which were only a couple of hours old went directly from the dipping vat, sought out their mothers, which had already been dipped, and took nourishment from them, a fact which substantiates your claim that the dip was absolutely non-poisonous.

We did not get another opportunity to dip these sheep until after they were shorn, but about July 10 we dipped them again in Kreso Dip, and as per your instructions gave them a second dipping 10 days later. My wool crop had in the meantime been stored in the warehouse at Merrill, and about Sept. 1 it was inspected by Mr. T. C. Busha, a wool buyer from Big Timber, Montana, who reported to me that the wool taken from my ewes, and which had been dipped in Kreso Dip, made the best showing of any wool in my entire clip, and further stated that I was very fortunate to have used Kreso Dip, as owing to the length of the wool at the time the dipping was done, had I used any dip coming under the government regulations he would have been compelled to discount it from 10 to 15 per cent. As I had about 32,000 pounds of this wool, the loss would have been considerably more than enough to cover the cost of dipping.

My sheep were inspected within the last few days by the State Inspector, my foreman and myself, and at this time, 60 days after dipping, show no trace of scab.

Yours truly,

(Signed)

BERT SHOREY.

Read letter on page 14, from Mr. B. F. Shorey, of Billings, Montana.

The Sheep Tick (*Melophagus ovinus*) is a common parasite of sheep, found generally throughout the whole United States and Canada, and while not so destructive as scab, it produces sufficient damage to deserve the careful attention of every sheep-owner.

The sheep tick is about one-quarter of an inch in length, the body short, broad and tough. In color it is a grayish-brown, irregularly mottled.

The abdomen of the tick when filled with blood is immensely distended and transparent, the blood being plainly visible through its texture. They increase rapidly, and a sheep infected with ticks will scatter them through the whole flock.



SHEEP TICK.

Symptoms. The severity of the symptoms depends to a great extent on the number of ticks infesting the sheep. While a few will cause the animal but a trifling annoyance, in a short time they increase to such numbers that they cause an intense irritation and restlessness, interfering greatly with the well-being of the sheep. Lambs, owing to their tender skin, suffer from these pests, especially after the older sheep are shorn,

EDGE MONT, S. D.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: We have dipped 30,000 sheep in Kreso Dip for ticks. Gave them one dipping and never could find ticks afterwards. The sheep and especially the lambs were black with ticks before dipping, so of course I think Kreso Dip is all O. K.
(Signed) N. S. TUBBS.

BROOKMONT FARM.

ODEBOLT, IA.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Replying to your favor of June 1st, I wish to say that I have only recently received the report of our experience with Kreso Dip and have only praise for it. It certainly is quick to act and sure. Yours very truly,
(Signed) A. E. COOK,
Prop. and Gen. Mgr.

OWOSSO SUGAR COMPANY.

Alicia (Saginaw County), Michigan.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Enclosed please find our order for fifty gallons of Kreso. We have at the present time about 800 head of live stock, mostly horses and breeding cattle. They have been singularly free from disease, and we account for this by the fact that at regular intervals we have disinfected all our barns and sprayed both horses and cattle with Kreso.

During the past winter an epidemic of abortion prevailed, which baffled the skill of all the veterinary surgeons in this vicinity. Concluding that it was due to the germ of abortion, the writer caused all of the 300 or more cows to be treated with a vaginal douche of Kreso, 1 part Kreso to 100 parts of water, and it gives us pleasure to say that there has not been a single case of abortion since the injection of Kreso.

Yours very truly,

(Signed)

PRAIRIE FARM
(Owosso Sugar Co.),
E. T. Bowen, Mgr.

PARKE, DAVIS & Co.,
Detroit, Mich.

HARRIS, Mo.

Gentlemen: We have used Kreso Dip and Blacklegoids for a number of years, which fact is self-evident that we consider them the best.

We had a request from customers of ours from Puerto Principe, Cuba, a short time ago for one of your outfits and medicine to vaccinate against blackleg.

Assuring you of our best wishes and of the fact that we regard you as benefactors of the Live Stock Industry of America, I am,
In truth,
(Signed) C. B. HARRIS, Sec'y,
Model Farm.

as the ticks leave the sheep and take shelter in the wool of the lamb.

Treatment. The best method is to dip the whole flock, and the best time to dip for ticks is directly after shearing. One thorough dipping in Kreso Dip No. 1 (1 to 72) will destroy all the live ticks, but as some pupa are sure to be left in the wool of the lambs, it is good policy to repeat the dipping in two or three weeks. (Read carefully pages 45 to 54.)

Before bringing new sheep into the flock they should always be dipped. This is a necessary precaution, and if taken will often prevent the spread of this and other parasitic diseases.

Lice (*Trichodectes Sphaerocephalus*). These parasites are frequently found on sheep. They are a small insect about 1/25 of an inch in length; general color is white with the exception of the head, which is reddish-brown. They are often found in large numbers associated with scab. Their favored locations appear to be the inner part of the thigh and sides of the neck.

Lice on the sheep cause much irritation and discomfort. The skin becomes rough and hardened (from rubbing), and covered with dry, blackened scales, the wool becoming dry, brittle and lifeless, giving the sheep a very unthrifty appearance. Sheep will rub against posts and other objects and nibble at their flanks, frequently scratching the elbows with the hind feet. When they lie in the sun, the parasites move to the outside of the fleece, where they can easily be seen.

Treatment. Use Kreso Dip No. 1, one part to water 72 parts, as directed on page 45.

Maggots are caused by the common blow-fly or flesh-fly, which deposits its eggs on sores or on damp, dirty wool, generally on the hind quarters of the sheep. These are hatched into grubs, which quickly work their way into the skin, causing intense suffering, and, if neglected, the death of the animal.

WALNUT GROVE, MO.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: I am in receipt of yours of the 12th, and in answer will say I have tried Kreso Dip and find it an indispensable article for the farmer and stockman. I bought a gallon of your dip to see if I could rid my flock of sheep of the scab, which they had in the worst form. Some of them had lost all the wool, and in fact they were about the raggiest looking outfit I ever saw. Besides, I had lost nine old ones and lots of lambs. They were scratching and rubbing all the time and had big sores on them as big as my hand.

I had been reading about Kreso Dip, and as my sheep were in such shape that I had to do something or lose them all, I purchased a gallon, thinking it would take it all or more. I dipped 67 head of old sheep and 65 lambs and only used three gallons of your Dip. I rubbed it in the wool and held them in a short time, then put them under "head and ears."

This was about the middle of March. I did not shear until about the 10th of May, then gave them another dipping, using only two gallons after they were shorn.

In four days after the first dipping I did not see a sheep in the flock rubbing or scratching. When I took the remaining wool off them in May, I did not find one single tick or louse on the 67 head of sheep.

The sheep are doing fine now and I see no sign of scab in them. I can heartily recommend Kreso Dip for scab in sheep and will not attempt to raise stock of any kind without it. From now on my flock of sheep will get a dipping with Kreso Dip before they go into winter quarters, then I *know* I will be safe from scab.

Kreso Dip is certainly the dip to use and I can heartily recommend it to others.
Yours very truly,
(Signed) T. S. WILLHITE, R. F. D. No. 1.

IOWA STATE COLLEGE.

Division of Agriculture and Experiment Station.

AMES, IA.

PARKE, DAVIS & Co.,
Detroit, Mich.

My Dear Sirs: I have your letter of July 19th in regard to the Kreso Dip. In my previous letter I think I mentioned to you that I should not be able to give your dip a fair trial on our sheep.

We dipped the sheep in this, however, and on examination day before yesterday, July 21st, we could not find even one tick on some 65 sheep.

Your dip was used in ridding the breeding sows and pigs of lice. In this case it was very effective. Our swine herdsman said to me that of all the dips he had used he liked Kreso best, for this reason—that it not only killed the lice, but left the skin of the hogs in such a good condition. We have used Kreso Dip also in spraying our cattle, both old and young, to rid them of lice. In this we found it very effective.

Yours very truly,

(Signed) W. J. RUTHERFORD,
Assistant Professor.

Treatment. Cut away the wool, cleanse the affected part and apply Kreso Dip No. 1—one part of dip to water 10 parts. Make a second application five days after the first, and so on until cured.

Screw Worms. (See page 21.)

Foot-Rot is a disease often found among sheep con-



SHEEP SWIMMING THROUGH VAT FILLED WITH KRESO DIP.

finer to low, wet pastures. It is caused by a germ (*Bacillus necrophorus*) which lodges in a scratch or cut on the foot.

Treatment. Remove diseased portion of the hoof, shorten long feet, but do not cut deep enough to make

JAS. A. FUNKHOUSER.**Breeder and Importer of Fine Hereford Cattle.****Plattsburg, Missouri.**MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: I have been using your Blackleg Vaccine and Kreso Dip and the results I have obtained from the same have been very satisfactory.

I can heartily recommend both products to anyone wishing a reliable product of this nature.

Respectfully,
(Signed) JAS. A. FUNKHOUSER.

NELSON MORRIS RANCH.

Herman, Neb.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Last winter the cattle in our feed lots were very lousy. Their hair was rubbed off, in many places their bodies being bare, and hair left appearing dead. We dipped 1,300 of these cattle in Kreso Dip, simply allowing the animals to swim through the vat. In this manner they were not in the vat but a moment, as we passed through 200 head in 35 minutes by the watch. After two dippings, one week apart, the hair on these cattle had a silky appearance, and their appetites were improved. I also dip our hogs frequently, as I consider there is nothing to equal dipping as a disinfectant, and can cheerfully recommend your dip as being O. K.

Yours truly,
(Signed) E. V. MORGAN.

LAFAYETTE STOCK FARM.

J. Crouch & Son, Proprietors,
Lafayette, Ind.

Largest Importers in America of Oldenburg German Coach, Percheron and Belgian Stallions.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: We just received last shipment of Kreso and wish to thank you for your promptness in getting the shipment to us. We have used Kreso both as a disinfectant and also on sores on our horses and it has given excellent satisfaction. We can heartily recommend it to anyone wishing a disinfectant, as we have certainly tested it out and find none as good.

We will have a large shipment of horses within the next three months and will undoubtedly want some more Kreso, and will place our order in ample time so that it will reach us in time to disinfect our stables before their arrival.

Thanking you for all past favors and trusting our business may be as pleasant in the future as it has been in the past, we beg to remain,

Yours truly,
(Signed) J. CROUCH & SON,
Per J. Crouch.

the feet bleed. Allow the sheep to stand in a solution of Kreso Dip No. 1—one part of dip to 24 parts of water. Repeat daily until cured, or after first treatment pack the hoof with an ointment made of equal parts Kreso Dip No. 1, Flowers of Sulphur, and Pine Tar.

Sore Mouth. Sheep-owners in the West have more or less trouble in their flocks from this disorder. It appears to be a germ disease affecting first the mucous membranes of the mouth, but later, if not checked, extending throughout the entire intestinal canal.

Treatment. Wash the sore mouths daily with a 1 to 75 solution of Kreso Dip No. 1. If possible supply the animals being treated with soft succulent feed.

Stomach Worms have been spreading rapidly and causing a great deal of loss during the last few years. Every sheep owner should examine his flock, and if worms are found begin a course of treatment and follow it up until the pests are exterminated. When a flock is free from them an occasional dosing will be good as a preventive as well as to clean out any chance infections that may have occurred.

Don't bring new sheep into your flock until you are sure they are free from worms. You will save yourself much trouble and loss by following this rule.

Symptoms. The first symptom usually noticed is that the sheep do not seem to "do well." They may not appear thin, but when lifted are found to be light. When the flock is driven those worst affected will lag behind and quickly tire out. The skin of wormy sheep instead of having the natural pink color will appear bluish-white.

Treatment. Let the sheep go without feed for 16 or 18 hours, then drench with $\frac{1}{2}$ pint of a solution of one part Kreso Dip No. 1 to 99 parts water or milk. (See page 48.) In drenching a sheep set it upright, as in that position there is less danger of strangulation.

STATE AGRICULTURAL COLLEGE OF COLORADO.

Department of Agriculture.

FT. COLLINS, COL.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Regarding Kreso Dip will say that we have used it on our cattle for lice and I have never had anything which seemed to be so satisfactory. The closest examination revealed the fact that not a single live insect could be found, and I think a great many of the eggs were destroyed as well. It was certainly satisfactory as a dip for sheep for small red lice that we found on some of them that came to us from St. Louis.

Yours very truly,
(Signed) W. L. CARLYLE,
Professor of Agriculture.

FAIRVIEW RANCH.

Swanson Bros., Proprietors.

PAGE, KAN.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Dear Sirs: On June 11th and 21st we had 275 head of cattle, including some very old cows and some very young calves and other cows very heavy with calf, dipped in a 1 to 75 cold solution of Kreso Dip. Before dipping these cattle were lousy, some with bad cases of Texas itch or mange, and all of them thin and covered with a heavy coat of old hair.

We have today thoroughly examined the above cattle and find the mange scabs all loosened and coming off, new hair taking its place. There is not a single one in the herd but what is shedding freely and all traces of lice have disappeared.

As the cattle passed through the vat no signs of irritation or other bad effects were noticeable. One full-term calf was born within an hour after cow was dipped and both were all right. Several calves have been born since dipping and are all right. No trouble in the calves finding their mothers after both had passed through the vat.

We have seen the effect of various other dips that are on the market and do not hesitate in saying that the Kreso Dip is far ahead of anything we have seen used for quick results and ease of using. We heartily recommend the Kreso Dip as a safe and efficient dip for cattle.

Very truly yours,
(Signed) SWANSON BROS.

GUILFORD FARM.

PECATONIA, ILL.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Our experience with Kreso has been most satisfactory. As a cheap and effective disinfectant for use in and about the house in which we keep our White Plymouth Rocks and Mammoth White Pekin ducks we have not found its equal. As a disinfectant about stables and for the veterinary work done on the farm it is certainly fine.

The merits of Kreso commend it to a more general use.
(Signed) E. H. GUILFORD.

Repeat the dose (except with very weak animals) the following day, starving beforehand, as in the first dose. Two treatments are usually sufficient, but if necessary give a third.

No matter if only a few sheep show signs of worms, it is better to dose the entire flock. Dr. Smead, the well-known authority, recommends drenching the entire herd before turning out in the spring, again about Aug. 1st., and again about Nov. 1st.

Although this takes some little time and trouble, you can well afford to do it rather than let these parasites get a start.

Various other remedies have been proposed for stomach worms, but most of them have the objection of being either expensive or dangerous.

Kreso Dip No. 1 is free from these drawbacks. It is so inexpensive that a whole flock may be dosed at a trifling cost. It is practically non-poisonous when used as directed, and it is very effective in destroying the parasites.

Another treatment used very successfully by Dr. H. S. Smith (V.S.) is as follows:

Kreso	 1 oz.	} Enough for 8 sheep.
Gasoline	 3 ozs.	
Milk	20 ozs.	

Give grown sheep 3 ozs. per dose every second day three times; to lambs give 2 ozs. Be careful not to choke animal. Use rubber tubing.

KRESO DIP NO. 1

Will Promote the Growth of the Fleece

**WOOL FROM SHEEP DIPPED IN KRESO DIP
No. 1 BRINGS THE HIGHEST MARKET PRICE**

Why Lose Money by Using Inferior, Harmful Dips?

PLATTE VALLEY FARM AND CATTLE COMPANY.

Gothenburg, Neb.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: I have dipped 2,000 head of cattle and 2,000 head of hogs this fall in your Kreso Dip at our ranches at Maxwell and Gothenburg.

This was a part of the car of Kreso Dip purchased by W. C. May, the druggist at Gothenburg.

I wish to state that the dip is pre-eminently satisfactory in every respect, having ridded the stock of all vermin, killing lice on hogs and freeing the cattle of all itch, mange and lice. It is without doubt the most satisfactory dip I ever used, and I heartily recommend it to all ranchmen who desire a dip that is an effective germicide and at the same time non-irritating, leaving the skin of the animals in a healthy condition.

Yours truly,

(Signed) PLATTE VALLEY FARM & CATTLE Co.,
N. C. Bowen, Mgr.,
Live Stock Dept.

DRS. FLOWERS.**Veterinarians.**

DALLAS, TEXAS.

PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: During the latter part of 1905 we received five gallons of Kreso Dip through local house, Greiner-Kelly & Co., druggists of this city, and referring to the merits of same, beg to say that we have tested this product thoroughly on swine of all ages for parasitic troubles and are very pleased to report that the same has been effectual in exterminating and eradicating parasitic diseases common to this family.

We find that this product makes a very nice emulsion, and it is easily applied and causes but little irritation or uneasiness to the animal; we therefore recommend its use in general to farmers who are in need of such a product.

Yours very truly,

(Signed) DRS. FLOWERS.

ELBERT BROS.

Breeders and Exhibitors of the Leading Breeds of
Fancy Poultry.

ALEXANDRIA, IND.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: I have given Kreso Dip a fair trial and I think it a very valuable product for use among poultry. I have cured several bad cases of roup and canker with it. As a disinfectant I do not believe there is anything better. Please quote me prices on it and state what size packages you put it up in, for I can hardly get along without Kreso since I have given it a trial. I am perfectly willing to recommend it to any poultryman who is willing to give it a test.

Yours truly,

(Signed) FRANK ELBERT.

DISEASES OF CATTLE.

Mange (sometimes called Scabies, Cattle Itch, Spanish Itch, etc.). There are two varieties of this disease, one known as common mange (*Psoroptes communis bovis*) and another known as symbiotic mange or tail mange, but since both yield to the same treatment we consider them under the same head. Fortunately, sarcoptic or deep-seated mange does not as a rule attack cattle.

Symptoms of cattle mange are probably too well known to need description. As with sheep scab the most noticeable symptom is an intense itching, beginning usually at the root of the tail or on the shoulders or withers. Scratching results in loss of hair and the formation of scabs or crusts. Mangy cattle soon run down in flesh. The disease is most common and disastrous during the winter season, when the weakened and debilitated animals fall easy victims to the cold. One affected animal will soon spread the disease to others, both by coming in contact with them and by scattering the parasites upon posts, fences, walls, etc., from which places they find their way to healthy ani-

BLACKLEGIDS

THE SIMPLEST, SAFEST AND SUREST WAY TO VACCINATE
CATTLE AGAINST BLACKLEG. JUST A LITTLE PILL
TO BE THRUST UNDER THE SKIN BY A
SINGLE THRUST OF AN INJECTOR.

Write for Free Descriptive Booklet.

THE NATIONAL STOCK FARM,**Marcellus, N. Y.**

PARKE, DAVIS & Co.,
New York.

Gentlemen: I have the honor to inform you that we used Kreso Dip for various ailments of stock, notably a case of mange on a horse which had baffled a cure something like seven months, but after six weeks' treatment with Kreso are pleased to say the horse is none the worse for wear and working every day.

This was one of the most obstinate cases we have been up against, and had about given up, as the horse was so bad we could not work or drive her until using Kreso for four or five days. The hair started in about 15 days' time from commencing treatment, and at present time not so much as a scar remains to show it was affected, and in the belief that Kreso Dip is in reality a remedy every stock dealer should be in possession of, I have taken the liberty unsolicited of writing you.

We are at present using Kreso as a disinfectant for stables, etc., and are much taken up with its good properties, in the belief that it is really all it is claimed to be.

Very truly yours,

THE NATIONAL STOCK FARM,
C. M. A. SMITH,
Proprietor in Charge.

THE VAN CAMP CONDENSED MILK CO.

EFFINGHAM, ILL.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: Regarding our recent experiments with your "Kreso Dip," will say that we found it very satisfactory as a solution, also as a disinfectant in stables, both alone and mixed with whitewash. For saddle and collar galls we find it a very good wash.

In a general way, we have found this dip to be a very valuable help in all places where we have used it for cleansing and disinfecting.

Yours truly,
(Signed) VAN CAMP PACKING CO.

IOWA STATE COLLEGE.

W. J. Rutherford, Asso. Professor of Animal Husbandry, Expert in Animal Husbandry,
U. S. Dept. Agriculture.

AMES, IA.

MESSRS. PARKE, DAVIS & Co.,
Detroit, Mich.

Gentlemen: I have your letter and have also received shipment of Kreso Dip. We have been using it in spraying our cattle for lice, using in this work a Spraymotor Machine. This spraying operation with Kreso Dip has proved very effectual, ridding our steers and breeding stock of vermin.

Yours very truly,
(Signed) W. J. RUTHERFORD.

mals. For that reason these places must receive attention in order to stamp out the disease.

Treatment. Dipping in Kreso Dip No. 1 is the best course where the number affected is large. (See general points on dipping, page 45 to 54.) Use 1 part Kreso Dip No. 1 to 72 parts water. Break up the worst scabs with a brush or currycomb before dipping. Repeat in eight or ten days to kill newly-hatched parasites. Hand-dress as per directions on page 53, if it is not convenient to dip. In either case do the work thoroughly. You only waste time and money if you half do the job.

Kreso Dip No. 1 solution should be applied to fences, walls, chutes, posts, feed racks, etc., to kill parasites rubbed off on these places by mangy animals, and thus prevent reinfection. Use the solution that remains in the tank after dipping and apply with a sprayer or sprinkling can. Burn old infected bedding, trash, etc., that cannot be disinfected.



SCAB MITE.

Lice (*Hæmatopinus eurysternus* and *H. vituli*, also *Trichodectes scarlaris*) upon cattle are a cause of a great deal of trouble and annoyance. They are especially common in the spring and fall upon calves and young cattle. Unless relief is given they are very likely to stunt the animal or at least to seriously interfere with its fattening for market. Both red and blue cattle lice are easily

WALNUT PARK HERD.**W. W. Waltmire, Proprietor.**

Chester White Hogs, Shorthorn Cattle, Oxford Sheep, Barred
Plymouth Rock Chickens, Peafowls and Muscovy Ducks.

RAYMORE, MO.

MESSRS. PARKE, DAVIS & Co.,

Detroit, Mich.

Gentlemen: I received three gallons of your most excellent hog dip at our County Fair as a special premium on best sow, any age or breed. I won on "Walnut Park Pride," a Chester White sow 20 years old, weighing almost 700 lbs. and a World's Fair prize winner at St. Louis. I have been a breeder of Chester White hogs for 24 years and have used several different kinds of dip, and must say that Kreso Dip does its work better than any dip yet tried. I believe it to be all it is recommended to be, and no one that handles hogs can afford to be without it or some other dip. It keeps hogs healthy and the skin soft and smooth.

Respectfully,

(Signed) W. W. WALTMIRE.

MACEY, S. D.

MESSRS. PARKE, DAVIS & Co.,

Detroit, Mich.

Gentlemen: We, the undersigned, wish to certify to the merits of Kreso Dip. We have dipped twice this fall and find it all right. Our cattle are looking fine and we think it the best thing on the market for lice, itch and mange and would recommend it to our friends.

Yours truly,

(Signed) BEN LONGPRE,
O. M. BLAKE,
JOE A. CARRIERS,
C. F. LONGPRE,
A. EDW. LONGPRE.

PABST BREWING COMPANY.

MILWAUKEE, WIS.

MESSRS. PARKE, DAVIS & Co.,

Detroit, Mich.

Gentlemen: We wish to say that we have used your Kreso Disinfectant in our stables for some time past and have found it very satisfactory.

Yours very truly,

(Signed) PABST BREWING COMPANY,
Gustave Pabst, President.

HARLAN, IA.

MESSRS. PARKE, DAVIS & Co.,

Detroit, Mich.

Dear Sirs: I was always fighting hog lice until I used your Kreso Dip, but my troubles on that line are over.

Commenced using your Dip nearly a year ago, and there is not a louse or a nit on the place. It helps the skin and hair and keeps Mr. Hog healthy. Would not be without it.

Yours truly,

(Signed) WM. KEEP, Mgr.,
Larchwood Stock Farm.

killed by Kreso Dip No. 1, one part to 60 or 75 parts water. (See page 48.) Dip a second time in about 8 days to kill the lice that have hatched out since the first dipping. Either spraying or hand-dressing will effect the same purpose if care is taken to see that the solution is scrubbed thoroughly into the skin. (See page 53.) Favorite locations of the lice are in protected places, as about the base of the horns, in the flanks, etc. Therefore, particular attention should be given these places.



RED CATTLE LOUSE.



BLUE CATTLE LOUSE.

Many cases of supposed mange upon cattle are really caused by lice. Make a careful examination and you will find the lice if they are causing the trouble. The above directions if followed carefully will exterminate the pests.

Screw Worms (Larvæ of *Chrysomya macellaria*). The female fly deposits eggs upon cut, torn, abraded, or any raw surface. The larvæ hatch from the eggs and burrow into the flesh and cause the animal much suffering. They are easily removed by the use of Kreso Dip No. 1. Cleanse the wounds thoroughly, removing the worms with an application of Kreso Dip No. 1, one part to water 10 parts. Re-dress the wound every few days until cured. The presence of Kreso Dip will prevent the return of the fly and reinfection.

OCHEYDAN, IOWA.

MESSRS. PARKE, DAVIS & Co.,
 Detroit, Mich.

Dear Sirs: Enclosed find \$—— for one ten-gallon can of Kreso Dip, which I have received. I find Kreso Dip to be a very good dip. About seventy or eighty of my pigs had canker sore mouths and I used Kreso Dip and never lost one. I have no objection to your using my letter in your printed matter.

Yours truly,
 (Signed) GUS A. PEDERSON.

STONYCROFT FARMS.**Registered Shorthorns.****Fine Shetland Ponies.**

BIRMINGHAM, MICH.

MESSRS. PARKE, DAVIS & Co.,
 Detroit, Mich.

Gentlemen: I take pleasure in recommending your Kreso Dip. We used 15 gallons last fall on Shetland ponies, cattle, sheep and dogs with excellent results, and found scarcely a tick on sheep at shearing time. It is also very beneficial for spraying cattle and horse barns and hen coops.

Respectfully yours,
 (Signed) I. E. WATERBURY, Supt.

COMISKEY, KAN.

MESSRS. PARKE, DAVIS & Co.,
 Detroit, Mich.

Gentlemen: Please ship by freight to Comiskey five gallons Kreso Dip at your earliest convenience and forward the bill by mail.

I used your dip last fall on our herd of Angoras with better results than any dip I have ever tried. Owing to the severe cold weather, we dipped only once, which succeeded in entirely eradicating all lice, but I presume the ulits were not destroyed, so need to be dipped again this season.

Yours truly,
 (Signed) J. W. TROUTMAN, Pres.,
 Angora Goat Breeders' Assn.

MARSLAND, NEB.

MESSRS. PARKE, DAVIS & Co.,
 Detroit, Mich.

Gentlemen: I have used a number of different dips, but find that Kreso Dip is the best. There are no bad results from its use. It is beneficial from the start. Our cattle improved from the day they were run through the vat and are in better condition today than at any time in the past fifteen years.

Yours truly,
 (Signed) H. G. FERMAN.

WINONA, KAN.

I, Layfe Alfrey, dipped 39 head of cattle in Kreso Dip June 11th, and again on the 21st of the same month. I am satisfied my cattle are cured of mange and that Kreso Dip will do all that it is recommended to do.

L. ALFREY.

Ringworm is a vegetable parasitic disease and shows itself by the formation of circular patches about the eyes and on the skin, portions of which are denuded of hair. The outside skin is slightly inflamed, pimples form which discharge an exudate, and a scaly crust is formed. It is a common disease among young cattle during the winter and spring, attended with more or less itching, and is communicable from one animal to another and also to man.

Treatment. Remove all crusts by washing with soap and water. Then apply Kreso Dip No. 1, one part dip to 20 parts of water, to the affected parts every five days until cured. Cleanse the stable and disinfect with Kreso Dip No. 1, one part of dip to 75 parts of water, to prevent reinfection.

Contagious Abortion. If you have ever had this disease among your cows you know what a serious thing it is, and you will probably do almost anything rather than have it break out again. On the other hand, if you have never had experience with it, be warned by that of others and keep a lookout for it. Do not put new cows with your herd until you are sure they are free from the disease. Disinfect the bull, as directed below, before and after service, especially if he is from a strange herd. This is one of the most common ways of spreading the disease. Make it a rule to use Kreso Dip No. 1 freely about your stable. There is little chance for the germ to gain a foothold under such conditions. Note the letters on pages 8 and 16 from people who have used Kreso Dip for this very purpose.

Treatment. When once introduced into a herd it can only be eradicated by energetic and thorough treatment, not only of both male and female, but also of the surroundings. Immediately remove all pregnant cows to healthy quarters which have been thoroughly disinfected. Remove the afterbirth of abortive cows and

thoroughly douche the womb and vagina with a solution of Kreso Dip No. 1, one part to warm water 100 parts. Employ this treatment every other day, using each time about four gallons of the solution, and wash the tail and hind-quarters, and douche the vaginæ of all pregnant cows with the above solution. See that the male is thoroughly disinfected by repeated injections of the same solution into the sheath an hour or more before and immediately after service. All stable floors, sides of stalls and surroundings should be thoroughly disinfected with Kreso Dip No. 1, one part to water 75 parts.

The douche can be given by using a $\frac{1}{4}$ or $\frac{1}{2}$ inch rubber tube with a tin funnel attached. Elevate the funnel several feet above the animal under treatment, then pour the warm Kreso Dip solution into it.

Calf Cholera and White Scours. Kreso Dip No. 1 will be found a most effective remedy. Mix two teaspoonfuls of Kreso Dip No. 1 with a pint of tepid water or milk and give as a drench. Repeat the following day if no improvement is noticed.

Much trouble from these diseases could be saved by care, cleanliness and thorough disinfection at calving time. The cow should have a clean stall, previously disinfected with Kreso Dip No. 1 (1 to 75), and plenty of fresh bedding. It is very important that the navel cord be kept from coming in contact with dirt and filth. Many cases of these diseases result from lack of attention to this point. When the calf is dropped, the cord should be washed with a solution of Kreso Dip No. 1 (1 to 75). It should then be bandaged to the body with strips of cloth passing over the back. The lower part of this bandage should be kept wet with a Kreso Dip No. 1 solution (1 to 75). When the calf is fed by hand, great care should be taken that the feeding vessels are clean. Dirty pails and troughs are common causes of these diseases. After use each time the vessels

should be rinsed out with Kreso Dip No. 1 solution (1 to 75).

Sores, Wounds, Bites of Insects, Etc., can be readily healed by applying a solution of Kreso Dip No. 1, one part of dip to 75 parts of water.

Flies and Mosquitoes. By using Kreso Dip No. 1 as directed you can save cattle, especially dairy cows, an endless amount of annoyance and worry. Use Kreso Dip No. 1, one part to water 75 or 100 parts. Spray this solution over the cattle, being careful to spray **against the hair**. You will find it will pay to repeat this application daily, especially when the weather is warm and flies are bad.

Here is a solution many have used and found good, particularly because it does not evaporate so quickly as the above:

1 pint Kreso Dip,
1 pint linseed oil (cottonseed oil will do),
2½ gals. water.

Mix and apply with a sprayer, as above directed.

A solution of Kreso Dip No. 1 may be sprayed on the bedding. The animal will by lying down rub it on the hide. This will keep the flies off the cattle. When this bedding is thrown out, the manure pile will no longer be a breeding place for flies.

ANTHRAXOIDS

FOR THE PREVENTION OF ANTHRAX OR CHARBON IN
CATTLE, SHEEP, HORSES, MULES, SWINE, ETC.

ANTHRAX VACCINE in pill form contains no living bacteria, hence may be used without fear of creating anthrax in healthy animals.

SEND FOR FREE DESCRIPTIVE CIRCULAR.

DISEASES OF HORSES.

For Mange, Lice, Ringworm and parasitic troubles generally, the same treatment can be used for horses as for cattle. (See pages 25 to 33.) Spraying the stables with a solution of Kreso Dip No. 1, one part to water 75 parts, keeps away the flies and prevents contagious diseases.

Mange (*Sarcoptes scabiei* var. *equi*; *Psoroptes communis* var. *equi*) should be treated as in cattle. (See page 25.) If the disease does not yield readily to this treatment, it is evident that the trouble is Sarcoptic Mange, which is caused by a parasite that burrows deeper into the skin than the ordinary mange mite, consequently a much stronger solution of Kreso Dip No. 1 should be used. Apply thoroughly a solution of 1 part Kreso Dip No. 1 to 40 parts of water every second day. This strength of solution may, on horses with thin skin, "take the hair off," but not permanently. In treatment of mange, all surroundings, stables, stalls, etc., must be carefully disinfected to guard against reinfection.

Intestinal Worms. Kreso Dip No. 1 will remove these parasites. Give colts two to three teaspoonfuls of Kreso Dip No. 1 in a quart of water as a drench. Full-grown horses should be given three to four teaspoonfuls of Kreso Dip No. 1 mixed with a quart of water.

Lice (*Hæmatopinus macrocephalus*, *Trichodectes pilosus*, and *T. pubescens*). Apply Kreso Dip No. 1 as directed on page 53. For the large western horse louse, a stronger solution is necessary, 1 part Kreso Dip No. 1 to 60 parts of water. Repeat the dressing in 10 days. This will destroy the lice on the horses, but if barn is not cleaned and sprayed they will soon be as badly infested as before. Kreso Dip No. 1 solution, 1 to 75, should be applied generously to the stalls, mangers, walls, etc., by means of a sprayer or sprinkling-can to eradicate lice.

Very often horses that are kept near poultry houses become victims of poultry lice. In fact, this is very common in some localities where many chickens are kept. The symptoms vary according to the number of lice present, and at times the trouble is discovered before any great damage is done. Then, again, the possibility of the horse having chicken lice may not occur to the owner, and the horse may present mange symptoms, as irritability, shaking itself and frequent attempts to roll, accompanied by incessant itching and scratching. If the animal shows these symptoms, examine the skin with a magnifying glass and you may find the cause of the trouble to be poultry lice.

Treatment. Apply to all the affected parts a solution of Kreso Dip No. 1, one part to water 75 parts, using an ordinary scrubbing brush.

For Galls, Grease Heel, Scratches, Barb Wire Cuts, Sores, Wounds, etc., make a solution of one part Kreso Dip No. 1 to 100 parts water, and dress the affected area every day.

Thrush and Proud Flesh. A mild caustic being needed, apply Kreso Dip No. 1 full strength for several applications, then a solution of one part Kreso Dip No. 1 to 100 parts water as in ordinary wounds.



HORSE LOUSE.

DISEASES OF HOGS.

Hog Cholera. Of all the diseases described in this book, probably none cause as much trouble and loss as Hog Cholera. One year the loss over the whole country amounted to forty millions of dollars! Think of it! If that were divided equally among say forty thousand farmers it would amount to one thousand dollars for each man. Can you afford to lose that much, or even one-half of that? Would it not pay better to spend a little time and money **preventing** the disease? It can be done, the only question is, will you act before it is too late?

Symptoms of Hog Cholera are shivering, unwillingness to move, loss of appetite and rise in temperature; the animals appear stupid and dull, and will hide in the litter and bedding. They may be at first constipated; frequently a liquid fetid diarrhea sets in. Sometimes the eyes are watery and running, the secretions becoming thicker until the lids sometimes stick together. Breathing is rapid and may be labored. Often a dry, hard cough is present, generally heard when the animals are driven from their bed. Frequently the skin of the abdomen and also of the ears is congested and discolored, giving a pinkish to red or purplish-red color. There is a rapid loss of flesh, weakness and prostration. The animal stands with arched back, and on attempting to walk totters. There is less and less inclination to move, weakness and exhaustion increase until death ensues.

Treatment.—At present there is no satisfactory treatment for Hog Cholera when once it has broken out. Beware of so-called sure cures.

Prevention. Cleanliness is the key-note. Keep the hogs healthy and thrifty. Give no chance for disease germs to accumulate in dirt and filth. A healthy hog naturally resists any disease.

Dip all animals frequently in Kreso Dip No. 1 (1 to 75) (read carefully page 45.) Once every week or two is not too often if there is cholera in your neighborhood.

Disinfect pens, houses, sheds, feeding and drinking troughs, etc., with Kreso Dip No. 1. (See page 5.) Give new pasture and quarters if there is the least reason to suspect that the old ones are cholera infected.

Feed should be clean and fresh. Dirty, mouldy, decaying feed is **not** fit for hogs. Mix Kreso Dip No. 1 with liquid feed—at the rate of 1 tablespoonful of Kreso Dip No. 1 to 1½ gallons feed.

Water that flows for miles in an open stream, often perhaps through pens where hogs are dying from cholera, is not fit for your hogs to drink. Give pure cool spring or well water. Mix Kreso Dip No. 1 with it occasionally in the proportions directed for feed.

Ventilate your hog houses and sheds. Let the sunlight in. It's a great purifier. Hogs that are forced to breathe foul, damp air are in no condition to resist disease.

Quarantine any hogs that you buy. Be sure that they are perfectly healthy before you put them with your herd. Keep strange dogs out of your yard. Look out for visitors that may have come from neighbors where hogs are sick with cholera. The infection may easily be carried on boots, clothing, etc. Have a shallow box filled with old burlap or other goods. Keep this wet with Kreso Dip No. 1. Have every one wipe

Send for a Special Booklet on

THE WAY TO CONSTRUCT A HOG WALLOW OF CEMENT

It will be sent free upon request. These wallows are easy to make and inexpensive.

the feet on this before going near your hogs. This precaution will kill the germs of disease which may have been picked up on the shoes.

Burn any hogs that die of cholera. If there is any doubt, be on the safe side. Burying is not safe unless very deep and the carcass is covered with lime.

Many farmers construct a "wallow" for their pigs and find that they are well repaid for their expenditure.

Hog Lice. You are almost sure to find some of these parasites on the hogs in the spring, and it is well to look the herd over every few weeks during the summer. If you find them, remember Kreso Dip No. 1 will kill them. Use 1 part of dip to 60 or 75 parts of warm soft water; immerse the animal completely; let it remain in the solution from one to two minutes. (See



HOG LOUSE.

page 48.) If you cannot dip, use a spray pump, or hand-dress. (See page 53.) See that every part of the animal is reached by the dip. Apply a second time ten days after the first to kill any nits or eggs that may have hatched out since the first dipping. Disinfect the pens and sheds, etc. If you don't lice will reinfect the hogs from bedding, fences, posts, etc. Money is saved by keeping hogs free from lice. There is no profit in trying to fatten lousy hogs—better feed the hog for gains than for raising lice. Furthermore,

hogs free from lice are better able to resist disease. It's easy to keep them free from these pests with Kreso Dip No. 1.

Mange (*Sarcoptes scabies* var. *suis*, and *Demodex folliculorum* var. *suis*, Simon). Caused by very small parasites which live in the skin of the animal, as described under mange on cattle and horses. (See page 25.) They multiply rapidly, causing violent itching. Small blisters appear, causing the skin to puff up, which produces scurf; the skin wrinkles and the hair becomes loose, matting together.

Treatment. Use Kreso Dip No. 1, one part to water 60 to 75 parts. Dip or apply with a spray pump, or hand-dress the animal. (See pages 53 to 55.) Rub it in thoroughly. Repeat the application in 8 or 10 days and disinfect the pens, sleeping quarters, etc. A salve made of Kreso Dip No. 1 and lard, equal parts, will cure severe cases.

Eczema, Pitch Mange. Usually found among hogs that are confined to filthy pens and sheds, exposed to extremes of weather and poorly fed.

Symptoms. Severe itching, with possibly a slight fever, poor appetite, and dullness. If an itching place is examined, numerous small red spots will be found on the skin.

Treatment. Change the conditions that have brought on the disease. Dip or hand-dress the hogs in Kreso Dip No. 1 as directed on pages 53 and 55. Give clean, dry bedding, a comfortable shed, and good clean feed.

Urticaria. This is a skin disease brought about by irritation from lice, exposure, dirt, or filth; often by a combination of several of these causes. It is not regarded as contagious.

Symptoms are much similar to those described under Eczema, with the exception that large swollen spots appear upon the skin suddenly. These spread very

rapidly until they sometimes cover almost the entire body. There is more or less itching. Rubbing to relieve this results in raw or abraded spots.

Treatment. Give the hogs good care, including clean, dry, comfortable quarters, and light, sloppy feed. Dip or hand-dress as directed on page 53. Repeat several times if necessary. Give two or three ounces Epsom Salts to each pig in feed.

Sore Mouth in Pigs. Wash affected parts once or twice daily with a solution of 1 part Kreso Dip No. 1 to 100 parts water. Send for booklet.

Worms. Withhold food for 24 hours, then for each 100-lb. hog drench with a teaspoonful of Kreso Dip No. 1 in a quart of water or milk. Larger or smaller animals dose in proportion. As a preventive, mix Kreso Dip No. 1 with drinking-water as directed for cholera.

Send for special booklet on Diseases of Hogs. It is free.

HOG CHOLERA

can be prevented by the use of

KRESO DIP NO. 1.

Write for testimonials on this subject from the officials of the largest State fairs in the country.

DISEASES OF POULTRY.

Success in the raising of poultry depends very much upon cleanliness. Good returns cannot be expected unless you keep the habitation of the poultry clean in every respect. Sunlight is one of the best preventives of disease; Kreso Dip No. 1 is another. Combine the two with cleanliness, and you will have healthy fowls. Hen-houses should be roomy, well lighted, well ventilated and clean. Disinfect by applying to all woodwork, floors, roosts, etc., a solution of Kreso Dip No. 1, one part to water 100 parts. This will cost but a trifling sum each day, and will protect against infectious diseases and destroy germs and parasites.

Lice, Mites and Fleas. Dip the fowls, except young chicks, in a solution of Kreso Dip No. 1, one part to warm water 100 parts. Ruffle feathers when in the dip so it can penetrate to the skin. It will not stain the feathers of a white fowl. Disinfect the hen-house as above directed, and apply Kreso Dip No. 1 full strength to the roosts. See that the nests are thoroughly disinfected.

Cholera—Symptoms. Severe diarrhea is usually the first symptom noticed. The discharge is at first greenish, then changes to whitish color. The fowls appear to develop an unusual thirst and are almost always to be seen grouped about watering vessels. When these contain nothing but lukewarm water, which has been breeding germs for days, it is not difficult to understand why cholera spreads like wildfire.

Treatment. Bear in mind two things: 1st, Germs are causing the trouble; 2d, Kreso Dip No. 1 will destroy these germs. Remove unaffected fowls to new grounds. These new quarters need not be large, but they should be clean. Spray or sprinkle droppings, yards, houses, etc., with a 1½% solution of Kreso Dip and paint perches with a 10% solution. (See page 48.)

Immediately remove any bird which shows signs of cholera. Be sure that the house is well ventilated and aired. Add Kreso Dip No. 1 to drinking-water (5 drops to a quart), which should be fresh and cool. Fresh green food is excellent at this time. If mashies or soft food are given, to each quart add five drops of Kreso Dip No. 1.

Much the same treatment should be given the sick fowls. Clean and disinfect quarters, which should be cool and airy. Burn trash, litter, filth, and dead birds.

Roup. An infectious disease, the specific cause of which is not known. It is perhaps harbored by filthy, unventilated, damp hen-houses. Among the early symptoms are: a watery secretion from nostrils and eyes, small grayish spots on the tongue, vision impaired, frequent sneezing and expectoration. It may be communicated by contact, by the drinking-water or food, or by the discharges. To prevent its spreading, thorough disinfection is necessary.

Treatment. Keep all the diseased fowls separate from the healthy ones. Apply a very small quantity of Kreso Dip No. 1 to the roof of the mouth, also to each nostril, but be careful not to interfere with the breathing. Wash out the eyes and bathe the head three times each day with a solution of Kreso Dip No. 1, one part to warm water 100 parts. Disinfect the premises and all utensils, especially drinking fountains; add 10 drops Kreso Dip No. 1 to each gallon of water.

Chicken-Pox. A contagious disease arising from unsanitary conditions; prevalent in warm climates. Disinfect the premises. Wash the head and body of the fowl several times each day with a solution of Kreso Dip No. 1, one part to warm water 50 parts until cured.

Infectious Leukemia. A disease of fowls, characterized by a gradual disappearance of the red blood cells and increase of the white blood cells, caused by a specific germ. To check the spread of the disease separate

the well from the sick, disinfect thoroughly, and add a few drops of Kreso Dip No. 1 to the drinking-water.

Canker—Symptoms. Cankerous, running sores about the head of fowls are not uncommon and are usually due to uncleanness, damp, mouldy quarters, etc., or they may result from frost-bites, scratches, wounds, etc., becoming infected with germs.

Treatment. Bathe the sores, mouth, nostrils, etc., with a 1% solution of Kreso Dip No. 1. In severe cases apply ointment composed of 1 part Kreso Dip No. 1 to 5 parts lard or vaselin. Clean up and disinfect quarters; see that they are light, airy, and dry.

Send for Special Booklet upon Kreso Dip No. 1 for Diseases of Poultry.

A Z O A

(RAT VIRUS)

No Traps ————— No Poison

A SCIENTIFIC MEANS OF DESTROYING
RATS AND MICE

Will not harm human beings, chickens, dogs, cats, or any animal except a rat. They do not die in the house.

WRITE FOR FREE BOOKLET.

IT WILL INTEREST YOU.

DISEASES OF DOGS.

Because of their roving habits, dogs are frequently the "carriers" of infectious diseases that are not common to that animal. For this reason it is well to give your dog an occasional bath in Kreso Dip No. 1 solution as a matter of precaution. Use 1 part Kreso Dip No. 1 to 100 parts of water. This treatment not only destroys disease germs and parasites which the dog may be carrying, but also cures mange and improves the condition of the hide and hair.

Fleas, Lice, Etc. Wash the animal in a solution of Kreso Dip No. 1 one part, warm water 100 parts; repeat every week until the parasites have disappeared.

Mange. Break up scab with a stiff brush, use as a wash a solution of Kreso Dip No. 1 one part to warm water 100 parts. Repeat the operation three times, about seven days apart, so as to kill all nits or eggs. One variety of this disease, caused by a parasite that burrows deep into the skin, requires patience and perseverance in treatment. Disinfect the kennels and bedding with Kreso Dip No. 1 (1 to 75).

Distemper may be prevented to a great extent by thoroughly disinfecting the kennels daily with a solution of Kreso Dip No. 1, one part to 75 parts water.

Send for our special Dog Book if you are interested.

CANINE DISTEMPER VACCINE

If you wish to protect your dog against canine distemper, or cure him if he has it, consult your veterinarian and have him use **Canine Distemper Vaccine**. This is the only true canine distemper vaccine which will prevent and cure canine distemper.

POINTS ABOUT DIPPING.

Do not put off dipping because it will cost you some time and money. You could never put time and money in anything where you would be surer of getting it back with big interest.

If any of your stock is infected with lice, etc., or if they have any skin disease, use Kreso Dip No. 1 according to directions, the sooner the better. It is throwing money away to feed parasites.

But even if your stock is comparatively clean and free from disease, use Kreso Dip No. 1 to keep them in that condition. Dip to keep the skin healthy and the hair or fleece clean and free from infectious material, to kill the parasites that appear even in the best herds.

There is no better way to prevent hog cholera, chicken cholera, roup, contagious abortion, distemper and other infectious diseases than by frequent use of Kreso Dip No. 1. A dollar spent in this way does more good than ten dollars spent trying to cure these troubles.

Remember that while Kreso Dip No. 1 kills lice, ticks, mites and fleas on the animals at the time of dipping, it does not kill the eggs or nits. These are usually enclosed in a tough skin or casing that protects them.

Any dip that is strong enough to go through this skin or case will surely hurt your stock. The thing to do is to wait until these eggs have hatched, usually a week or ten days, then dip again.

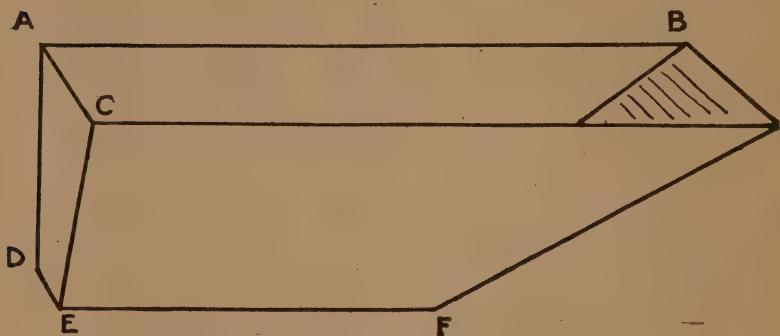
If you are treating a few horses or cattle, it is not likely you will want to dip them. You can get good results by hand-dressing as per directions given on page 53. Sheep, Hogs, Calves and Poultry should be dipped unless the weather is cold, in which case follow directions given on page 53.

HOW TO MEASURE A DIPPING TANK.

Before you fill the dipping tank you must know how much it will hold. If you don't you will not know how much dip to put in it. **Don't guess at this**—you will be sure to get it too strong or too weak. Take just a little more time and do it right.

We try to make these directions just as simple as they possibly can be made. If you will study them carefully you should have no trouble, but if you are puzzled, send us the measurements of your tank, marked just as the one in the drawing is, and we will figure it out for you—will be glad to do it.

Most dipping tanks are shaped like this diagram, and the directions are given for this kind of tank.



First. Measure length at top, A to B, and length at bottom, E to F, in inches. Add these numbers together and divide by 2, to get the average length.

Second. Measure width at top, A to C, and width at bottom, D to E, in inches. Add these two numbers and divide by 2, to get the average width.

Third. Measure from the bottom of the tank up along the side, E to C. Make this measurement in inches.

Now multiply the first number by the second and then multiply this result by the third.

Divide the last result obtained by 231, and this will give you the number of gallons the tank will hold.

For example: Suppose your tank is 72 inches long at top and 48 inches long at bottom—

$$\begin{array}{r} 72 \\ 48 \\ \hline 120 \end{array} \qquad \begin{array}{r} 2 \overline{) 120} \\ 60 = \text{average length,} \end{array}$$

and suppose it is 26 inches wide at top and 12 inches wide at bottom—

$$\begin{array}{r} 26 \\ 12 \\ \hline 38 \end{array} \qquad \begin{array}{r} 2 \overline{) 38} \\ 19 = \text{average width.} \end{array}$$

If the tank is 48 inches deep, the depth of the solution will be nearly 48 inches.

Multiplying the first number by the second—

$$60 \times 19 = 1140.$$

Multiplying this result by 48—

$$1140 \times 48 = 54,720.$$

Dividing by 231—

$$231 \overline{) 54,720}.$$

$$236 = \text{number of gallons the tank will hold.}$$

The result shows that such a tank will hold 236 gallons of water. Now, the question is—how many gallons of Kreso Dip No. 1 will it take for that amount of water?

If you are going to use it 1 to 60, as for hog lice (see page 38), divide the number of gallons your tank holds by 60, thus:

$$60 \overline{) 236}$$

4 (nearly) = number of gallons of Kreso Dip No. 1 required.

If you want to make the solution 1 to 75, as for sheep tick (see page 15), divide by 75 instead of 60, thus:

$$75 \overline{) 236}$$

3 (nearly) = number of gallons of Kreso Dip No. 1 required.

Whenever more solution is added to replace that carried out by the animals, the proportions should be kept up.

When you finish dipping there will be some of the solution remaining in the tank. You can make good use of this by sprinkling it about the yards, pens, stalls, etc., as a disinfectant, and to kill lice, etc., that are hiding in these places.

TABLES FOR MAKING UP KRESO DIP SOLUTIONS.

To make a 2% (1 to 50) solution use

- 1 tablespoonful of Kreso Dip to $1\frac{1}{2}$ pints water; or
- 1 pint of Kreso Dip to 6 gallons water; or
- 1 gallon of Kreso Dip to 49 gallons water.

To make a $1\frac{2}{3}\%$ (1 to 60) solution use

- 1 tablespoonful of Kreso Dip to 2 pints water; or
- 1 pint of Kreso Dip to $7\frac{1}{2}$ gallons water; or
- 1 gallon of Kreso Dip to 59 gallons water.

To make a $1\frac{1}{2}\%$ (1 to 75) solution use

- 1 tablespoonful Kreso Dip to $2\frac{1}{3}$ pints water; or
- 1 pint Kreso Dip to $9\frac{1}{2}$ gallons water; or
- 1 gallon Kreso Dip to 74 gallons water.

To make a 1% (1 to 100) solution use

- 1 tablespoonful Kreso Dip to 3 pints water; or
- 1 Pint Kreso Dip to 12 gallons water; or
- 1 gallon Kreso Dip to 99 gallons water.

Dilute Kreso or Kreso Dip No. 1 according to directions with soft water heated to 100 degrees F., mix thoroughly, and it will make a perfect emulsion. Heat the water before adding the Dip. Soft, heated water is better for several reasons: 1st, When animals are dipped in the solution, cold water is likely to be too much of a shock; 2nd, warm water makes a more penetrating and better emulsion; 3rd, warm water tends to dissolve any oily substance on the surface being disinfected or on the hair of the animal, softens the skin, and assists the work generally.

Kreso or Kreso Dip No. 1 will quickly and thoroughly emulsify with ordinary water, which should be heated to 100 degrees F., but when the water is hard, such as lime water, which is sometimes found in wells or springs, such hard water should be softened. When water does not lather freely with common soap and the suds do not remain on it, then it is hard. To soften it before mixing dip with it follow these directions:

Dissolve in 5 quarts of water 1 ounce of washing soda and 3 ounces of hard or 10 ounces of soft soap. Use heat to dissolve the soap and soda if necessary. This mixture may be called a Softening Fluid. About $\frac{1}{2}$ pint of it will soften 10 quarts of hard water, or $2\frac{1}{2}$ gals. will soften 100 gals. If this fails to make a perfect emulsion, then add concentrated lye until it does mix.

RENEWING THE VITALITY OF THE DIP.

When dipping, animals take out of the dip more dip than they do water, and as dipping progresses, the strength of the dip must be renewed. Probably the first 100 head of stock would go through the dip without its being reinforced. Then calculations should be made, allowing $\frac{1}{2}$ gallon of fluid for each animal, and water and dip added to make the amount in the tank equal the original amount. Then more dip should be added

in proportion, say 1 part of dip to 50 parts of water. For example: Originally 1 part of dip to 72 parts of water for official dipping of sheep. Say 100 animals have been dipped; they take out 50 gallons of fluid. Now, add to the dip in the tank 49 gallons of water and 1 gallon of dip.

DECOMPOSED DIP EMULSION.

When the dip solution is in the dipping tank, having been mixed with water, it is useful as long as it remains in an emulsion, that is, thoroughly mixed and presenting a uniform milky color, but after a time it decomposes. When this occurs, it should not be used, because the medicinal properties are no longer in suspension and would not be distributed upon an animal as intended when dipping it. Dip solution decomposes by use; from the excreta of animals, evaporation of water, and the destruction of the emulsifying agent. It shows separation, and when this occurs, should not be used. The dip mixture generally will keep for two or three weeks, according to the exposure to the action of the sun, etc.

SOME DON'TS IN DIPPING.

Don't use Kreso Dip No. 1 without mixing with water according to directions. See that it is thoroughly mixed until the emulsion gives a uniform color when stirred.

Don't use a dirty, filthy tank. Clean out the accumulated filth whenever necessary.

Don't let the animals drink the dip solution as they go through the tank. Give them a chance to drink all the water they want before dipping—it is better for them and cheaper for you.

Don't run a heated animal into a cold dip. It is

always better to have the solution heated to about 100 degrees F. or at least lukewarm.

Don't fail to dip a second time in a week or ten days to kill the parasites that have hatched out since first dipping.

Don't dip all but one or two strays and then be sur-



THE "STRAY" THAT REINFECTS THE FLOCK.

prised that the whole flock is soon as bad as ever. **Dip every one** except pregnant sows or ewes. These should be separated from the other stock and treated by hand, as directed on page 53.

Don't rush the stock through the tank. Keep each one in a full minute **by the watch**. **Don't** guess at it. Push each animal under, head and all, at least once as it goes through. Take account of the condition of the animals, the time of the year and its influence on the thickness of the coat. In the fall, when the coat is thick and heavy, more care in dipping is necessary than in the spring after shearing or when the animals are shedding. There are certain breeds of animals on which the hair naturally grows much thicker and the hide much tougher than on others. Take all of these points into consideration. Further, when the animal

is in the tank the back is not as completely immersed in the dip as the balance of the body. Along this line is where the mange mites, lice, etc., are more numerous than any other places. Consequently, careful attention should be given to see that the animals are thoroughly immersed. It is a good plan to have a stiff brush fastened to the end of a pole, and as the animal passes through the vat give the back a thorough scrubbing. In cases of scabies where large scabs have formed, break them up with a currycomb or stiff brush to give the dip a chance to penetrate and cure.

Don't give young lambs, colts, calves, etc., the same treatment you do full-grown stock. Our directions are for adult animals (except when otherwise specified) and should be modified when applied to young stock, according to age.



DIPPING MR. SHOREY'S FLOCK (see page 14).

WHEN TO DIP.

Dip sheep at least twice a year, in the spring, and in the fall when they are brought up for winter. This is the rule followed by the best shepherds and it pays, but don't be afraid to dip at any time, except in extreme cold weather, if you see signs of ticks, scab, or lice. If you have trouble with these parasites during the winter see directions below.

Dip hogs as often as possible during the summer—every two or three weeks is not too often. There is no surer way of preventing cholera and other infectious diseases and keeping them healthy and thrifty than frequent dipping in Kreso Dip No. 1. Try making a wallow and letting the hogs dip themselves as directed on page 37.

HAND-DRESSING.

By hand-dressing we mean applying Kreso Dip No. 1 to animals by hand. Most stockmen do not have a tank large enough to dip horses and cattle; pregnant sows and ewes are likely to be injured going through a dipping tank; sometimes sheep or hogs get lousy, scabby or mangy during the winter when it is too cold to dip. In all such cases hand-dressing is the best way to kill parasites and treat skin diseases.

Mix Kreso Dip No. 1 with water, making the solution stronger than for dipping, say 1 to 40, or 1 to 50, and spray or sprinkle it over cattle, horses, hogs or calves. If you use a sprayer be sure that you spray against the hair so the solution will get down to the skin. If you use a sprinkling can, take a broom or stiff brush and scrub the solution into the hair. Another way is to mix the dip in a pail, dip the broom or brush in this and scrub the solution into the hair as above directed.

Pay particular attention to the base and inside of

the ears, back, flanks, inside of legs—places where lice are protected and are usually most plentiful.



HAND-DRESSING HOGS.

In hand-dressing sheep, the following directions from an old shepherd will give good results. Remember that such treatment is only a makeshift until the animal can be dipped.

"Place sheep on its back, open wool and pour the dip along the entire length of the underside of the body. Keep the sheep in this position for 5 or 10 minutes and the dip will follow the skin of sheep. If dip is poured on the skin along the back it will incline to leave the skin and be conducted into the wool."

DIPPING TANKS.

A steel dipping tank is probably the best for all-round purposes. Such a tank is tight, strong and light—easily moved from one place to another. If you are interested in such a tank we will gladly send you particulars and prices.

If you don't want to spend the money for a steel tank, anyone handy with tools can make a fairly good tank of wood. Use 2x4 sticks for the frame, and tongued and grooved flooring for sides and ends.

Cement tanks are good—cheap and easily made. There is really no excuse for not having a dipping tank when a few dollars' worth of cement makes a good strong one that will last for years. Read the following letter clipped from Wallaces' Farmer:

A CHEAP DIPPING TANK.

"I have made a dipping tank for my hogs, which has proved very satisfactory. I dug a hole two feet wide at the top and eight feet long; at the bottom eighteen inches wide and four feet long, making it three feet deep, with a gradual incline for the hogs to walk out. Then I took good cement, mixing it in the proportion of one part cement to four parts of sand, and plastered this over like a cistern, placing the cement directly on the dirt. After this coating of cement had thoroughly set I whitewashed the inside with pure cement to make it absolutely tight. I used one sack of cement for the entire work. The tank does not leak. My hogs were covered with lice this spring. I tried all the remedies I heard of, without getting rid of them. After making my tank I dipped twice, and I do not believe there is a louse on my hogs. I dipped the second time two weeks after the first. I have sixty-five nice pigs from eleven sows and propose to dip them once a month all summer.

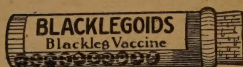
"This is what I call a poor man's dipping tank. Why feed millions of lice when you can build a tank at a cash outlay of not more than one dollar?

"M. C. Freestone."

BLACKLEGGOIDS

The Simplest, Safest, Surest and Quickest
Way to Vaccinate Cattle Against Blackleg

JUST A LITTLE PILL



(There are ten of them in this vial, and the picture shows you their exact size.)

To be placed under the skin by a
single thrust of the instrument



NO DOSE TO MEASURE. NO LIQUID TO SPILL. NO STRING TO ROT.

Write us for a reprint of a bulletin from the Mississippi Experiment Station giving *Nature, Cause, Symptoms, Points of Difference between Blackleg and other Diseases, Prevention, Vaccination, etc.*

A copy of this interesting pamphlet will be sent free upon request.

PARKE, DAVIS & COMPANY

Department of Animal Industry.

DETROIT, MICH.

KRESO DIP No. 1 IN THE HOME

The uses of Kreso Dip No. 1 are not limited to the barns and about the live stock. Being a germ and insect killer, deodorizer and cleanser, it has a multitude of uses about the home.

For use about the house, Kreso Dip No. 1 should be diluted 1 to 75. To make a solution of this strength, see page 19.

This mixture is practically harmless to the operator, yet it is very destructive to disease germs and insects. Kreso Dip No. 1 destroys foul odors. It does this by actually destroying the cause of the odor, not by overcoming it with an aromatic scent or perfume, which simply disguises the dangerous condition.

Kreso Dip No. 1 leaves no stain on washable fabrics, nor does it corrode metal, so it can be used freely without fear of damage to clothing, carpets or plumbing.

As a cleanser it is of great value. Add it to the water used for scrubbing dirty places and it will cleanse and disinfect at the same time. About sinks, garbage pails, outhouses, musty places in the cellar, vegetable bins, etc., etc., it will purify and stop the growth of germs.

In toilet rooms, use Kreso Dip No. 1 to flush the closets and to clean with around wash basins, closets, bath tubs, etc. It will prevent unpleasant odors and purify the atmosphere.

If freely used it will drive away and destroy ants, roaches, waterbugs, flies, etc.

Bedbugs will quickly disappear if crevices about bedsteads, base boards, mouldings, door and window casings, etc., are painted with Kreso Dip No. 1 *undiluted*. *In this form Kreso Dip No. 1 is somewhat caustic and irritating and should be handled carefully.*

ASK YOUR DRUGGIST FOR KRESO DIP NO. 1.
TAKE NO SUBSTITUTE.

KRESO DIP No. 1 is permitted by the Department of Agriculture to be used in official dipping of sheep under the following guarantee, which appears on each container:

"A sample of this product has been submitted to the Department of Agriculture for examination. We guarantee the contents of this package to be of the same composition as the sample submitted to the Department, and that when diluted according to the directions printed thereon for the treatment of sheep scab it will give a dipping fluid of the composition required of a coal-tar creosote dip by the regulations of the Secretary of Agriculture governing sheep scab."

DIRECTIONS.—For official dipping of sheep for scab dilute 1 part of Kreso Dip No. 1 with 72 parts of water.



Your Druggist Can Supply You
With Kreso Dip.

IN GALLON CANS
PER GAL., \$1.35

If not thus obtainable, we will send from Detroit or any of our branch houses. Kreso Dip is also marketed, in half-gallon and quart cans, pint bottles, in 5-gallon cans and in bulk. Special quotations for quantities.

PARKE, DAVIS & COMPANY

Department of Animal Industry.

Laboratories—Detroit, Mich.; Walkerville, Ont., Can.; Hounslow, Eng.
Branch Houses—New York, Kansas City, Baltimore, New Orleans,
Boston, Chicago, St. Louis, Minneapolis, Seattle, U. S. A.; London,
Eng.; Montreal, Que.; Sydney, N. S. W.; St. Petersburg, Russia;
Bombay, India; Tokio, Japan.